

Power:

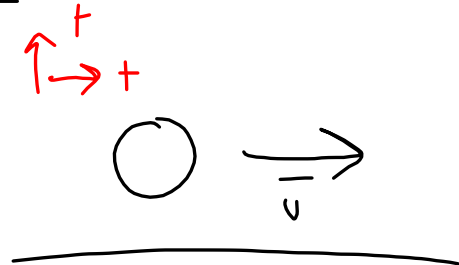
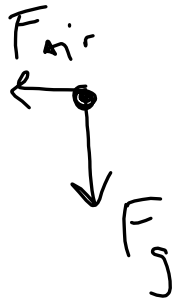
$$\text{Power} = \frac{\text{Work}}{\text{time}}$$

$$P = \frac{W}{t}$$

$$[\text{Watts (W)}] = \frac{\text{J}}{\text{s}}$$

Energy Calculation:

5) $m = 2.85 \text{ kg}$
 $KE = 42 \text{ J}$

FBD

$$KE = \frac{1}{2} m v^2$$

$$v = \pm \sqrt{\frac{2(KE)}{m}}$$

$$= \sqrt{\frac{2(42 \text{ J})}{2.85 \text{ kg}}}$$

$$= 5.43 \text{ m/s}$$

<u>Variable</u>	<u>Units</u>
Work (w)	J
F	N
d	m
GPE	J
m	kg
a_g	m/s^2
KE	J
v	m/s
h	m
P	Watts (W)
t	s